TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A, 333 Guadalupe Street, P.O. Box 149104, Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

WIN-1793

Effective Date: October 1, 2013 Reevaluation Date: **May 2016**

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (IRC) and the **International Building Code** (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Ultra Aluminum Clad Wood Operating Casement Windows, Individual and Mulled, Non-Impact Resistant, manufactured by

Kolbe & Kolbe Millwork Co., Inc. 1323 South Eleventh Avenue Wausau, WI 54401 (715) 842 - 5666

General Description:

System	Description	Label Rating	Design Pressure Rating (psf)	Hallmark Certification
1	Ultra Aluminum Clad Casement Operator	CW-PG65 36x90 – C	+65/-65	413-H-1221.00 413-H-1221.01
2	Ultra Aluminum Clad Casement Operator Segment Head	LC-PG65 36x90-C	+65/-65	413-H-1234.00 413-H-1234.01
3	Ultra Aluminum Clad Casement Operator 1/2 Circle	R-PG60 36x90-C	+60/-60	413-H-1227.00 413-H-1227.01
4	Ultra Aluminum Clad Casement Operator 1/4 Circle	LC-PG50 36x72-C	+50/-50	413-H-1206.00 413-H-1206.01
5	Ultra Aluminum Clad Casement Operator 1/4 Circle	LC-PG60 36x72-C	+60/-60	413-H-1207.00 413-H-1207.01
6	Ultra Aluminum Clad Casement Operator Mulled	CW-PG65 76x66 – C	+65/-65	413-H-1226.00 413-H-1226.01 413-H-1226.02

Product Dimensions:

System	Overall Size	Sash Size
1	36.00" x 90.00"	34.13" x 88.13"
2	36.00" x 90.00"	34.13" x 88.13"
3	36.00" x 90.00"	34.13" x 88.13"
4	36.00" x 72.00"	34.25" x 70.00"
5	36.00" x 72.00"	34.13" x 70.13"
6	76.00" x 66.13"	Two: 34.13" x 64.13"

Product Identification (Certification Agency Label on Window):

System		,		
1	Certification Agency	WDMA		
	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.		
	Product Name	Ultra Casement Operator		
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08		
	Certification Agency	WDMA		
2	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.		
	Product Name	Ultra Operating Casement Segment Head		
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08		
	Certification Agency	WDMA		
	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.		
3	Product Name	Ultra Operating Casement – 1/2 Circle		
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08		
	Certification Agency	WDMA		
4.5	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.		
4, 5	Product Name	Ultra Casement Operator – 1/4 Circle		
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08		
6	Certification Agency	WDMA		
	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.		
	Product Name	Ultra Operating Casement Mulled		
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-11 AAMA/WDMA/CSA 101/I.S.2/A440-08		

Impact Resistance:

Impact Resistant	Requirement
No	Impact protective system required when product is installed
	in areas where windborne debris protection is required

INSTALLATION INSTRUCTIONS

Installation:

Option 1: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips ($1\frac{5}{8}$ " x $10\frac{1}{16}$ " x 0.04") are secured to the window frame side jambs, head, and sill. The clips are secured to the window frame with two (2) No. 8 x $\frac{3}{4}$ " screws. The clips are secured to the wall framing with one (1) No. 8 x $1\frac{3}{4}$ " screw. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ " into the wall framing. The spacing of the clips is specified in the table below.

Installation Clip Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1, 2	Head/Sill: 18" Side Jambs: 15"	None	None	15"
3, 4, 5	Head/Sill: 18" Side Jambs: 18"	None	None	18"
6	Head/Sill: 12" Side Jambs: 16 ½"	None	None	16 ½ "

Option 2: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using the window frame with minimum No. 10 screws. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing. The spacing of the fasteners is specified in the table below.

Fastener Spacing:

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System	Distance From Each	Head	Sill	Side Jambs
	Corner	(on center spacing)	(on center spacing)	(on center spacing)
1, 2	Head/Sill: 12" Side Jambs: 11 $\frac{1}{4}$ "	12"	12"	11 ½"
3	Head/Sill: 13" Side Jambs: 13"	13"	13"	13"
4, 5	Head/Sill: 18" Side Jambs: 14 ½"	None	None	14 ½ "
6	Head/Sill: 12" Side Jambs: 11"	None	None	11"

Nailing Flange (Options 1 and 2): The nailing flange is secured to the wall framing with minimum 12 gauge smooth shank roofing nails spaced 7 inches on center along the perimeter of the window.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.